



## Alcimededes

How important is the forensic medical examination of a rape victim in terms of securing a conviction? This was a question that researchers tried to answer when conducting a survey of 307 alleged victims of sexual violence reported to police departments in Denmark during the years 1999–2004 (*For Sci Int* 2008; 180: 98–104). The police pressed charges in 55% of the cases; in 25% of cases no suspect was identified; and 11% were said to have turned out to be false allegations. Nineteen percent of all cases resulted in the conviction of the defendant. Two hundred and sixteen (70%) complainants underwent a forensic medical examination, of whom 58% had extra-genital injuries and 19% genital injuries. Sperm was detected in 35% of the 119 cases that were subjected to forensic analysis and there were a total of 31 (14%) of positive DNA matches between samples taken from the 216 complainants examined and the alleged assailant. Perhaps surprisingly, there was no statistically significant association between any of these factors and a successful conviction. The finding that none of the assault variables detectable following a forensic medical examination had any association with conviction rates could indicate that such examinations make no difference regarding the question of guilt once cases go to trial, although they may play an important role in eliminating false allegations. However, as the authors of the study point out, the findings may also simply indicate the need for further research to optimize sexual assault examination protocols in order to strengthen the legal impact of forensic medical findings.

A potentially important study reported in *The American Journal of Emergency Medicine* (2008; 26: 857–66) set out to estimate the frequency, prevalence, type and location of anogenital injury in black and white women after consensual sex and to investigate the role of skin colour in the detection of such injury. Two forensic nurses examined 120 healthy volunteers after consensual intercourse using three techniques – naked eye inspection, toluidine blue and colposcopy. Fifty-five percent of the sample had at least one anogenital injury after consensual intercourse with a significant difference in percentages between white (68%) and black (43%) participants. The authors argue that the difference in frequency and prevalence of anogenital injury between the ethnic groups is best explained by variation in skin colour. However,

detailed scrutiny of the results reveals that visual inspection identified a higher percentage of all five types of injury looked for (Tears, Ecchymoses, Abrasions, Redness and Swelling – ‘TEARS’) than colposcopy. Previous reports suggest that colposcopy is far more sensitive than naked eye inspection in identifying anogenital injury and this surprising result must cast some doubt over the reliability of the study.

It is well recognised that post-mortem injuries caused by animals can be confused with ante-mortem injuries and thus mislead forensic investigators into believing that they are dealing with a potential homicide. We are reminded of this by a case report from Japan which describes a 65-year old man who was found dead lying face down in a paddy field with extensive injuries to the right hand and forearm (*Legal Med* 2008; 10: 301–5). At autopsy the lack of any vital reaction around the margins of the wound indicated that they were likely to have been caused after death. More careful scrutiny revealed the presence of patterned abrasions resembling the foot-print of a weasel. The authors suggest that it is important to look for patterned injuries that may represent footprints as this can help identify the animal responsible for the post-mortem injuries.

Despite high suicide rates all over the world, suicidal decapitation accounts for less than 1% of all suicides, with railway injury and hanging being the most commonly reported mechanisms. Vehicle-assisted ligature strangulation, using a rope tied between the neck and a stationary object while attempting to drive the vehicle away, is a rare method of suicidal decapitation. A case report describes a 59-year old victim of vehicle-assisted ligature strangulation who used a long hemp rope tied between his neck and a cherry tree while attempting to drive his car away, resulting in complete decapitation. At autopsy, the decapitation wound of the head and the torso corresponded perfectly and a clear-cut severance plane was found at the bottom of the skull (*Legal Med* 2008; 10: 310–5). An associated review of the literature concerning suicidal vehicle-assisted ligature strangulation suggests that it is practised almost exclusively by males, and that the associated wound margins are usually clear-cut with a sharply-demarcated encircling abrasion zone.